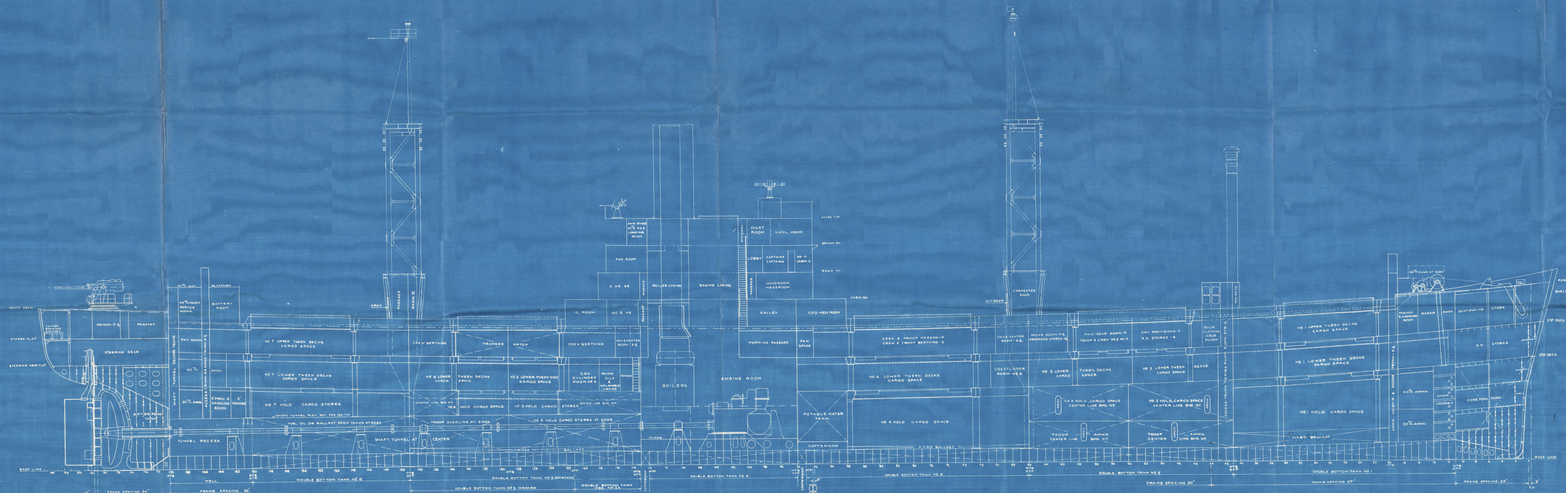
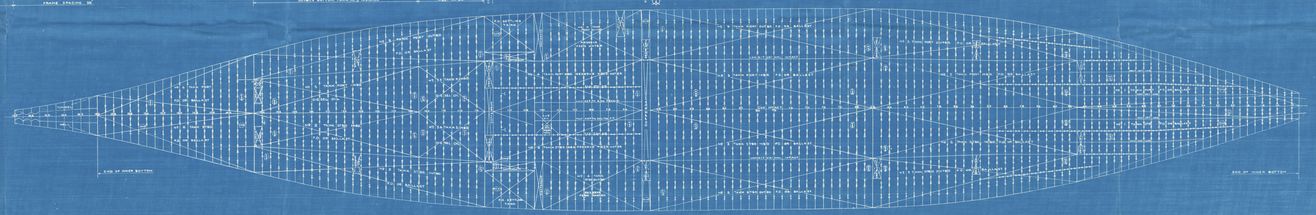

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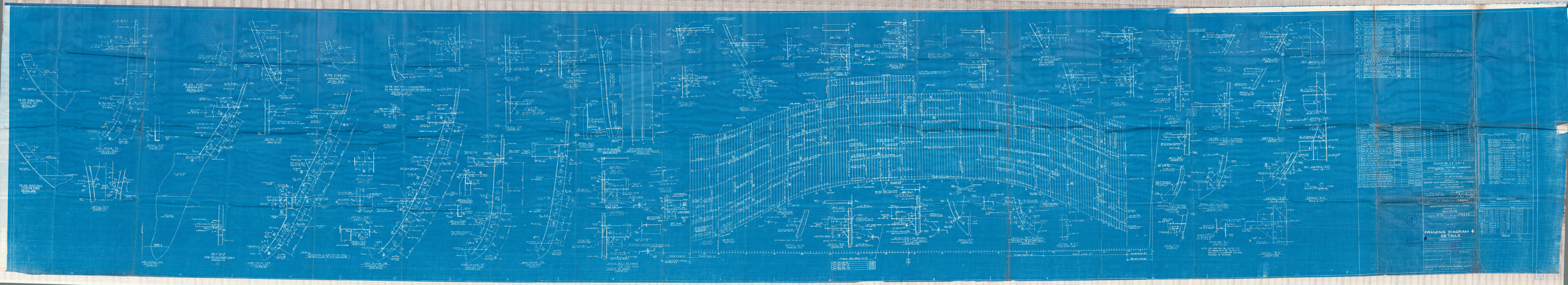


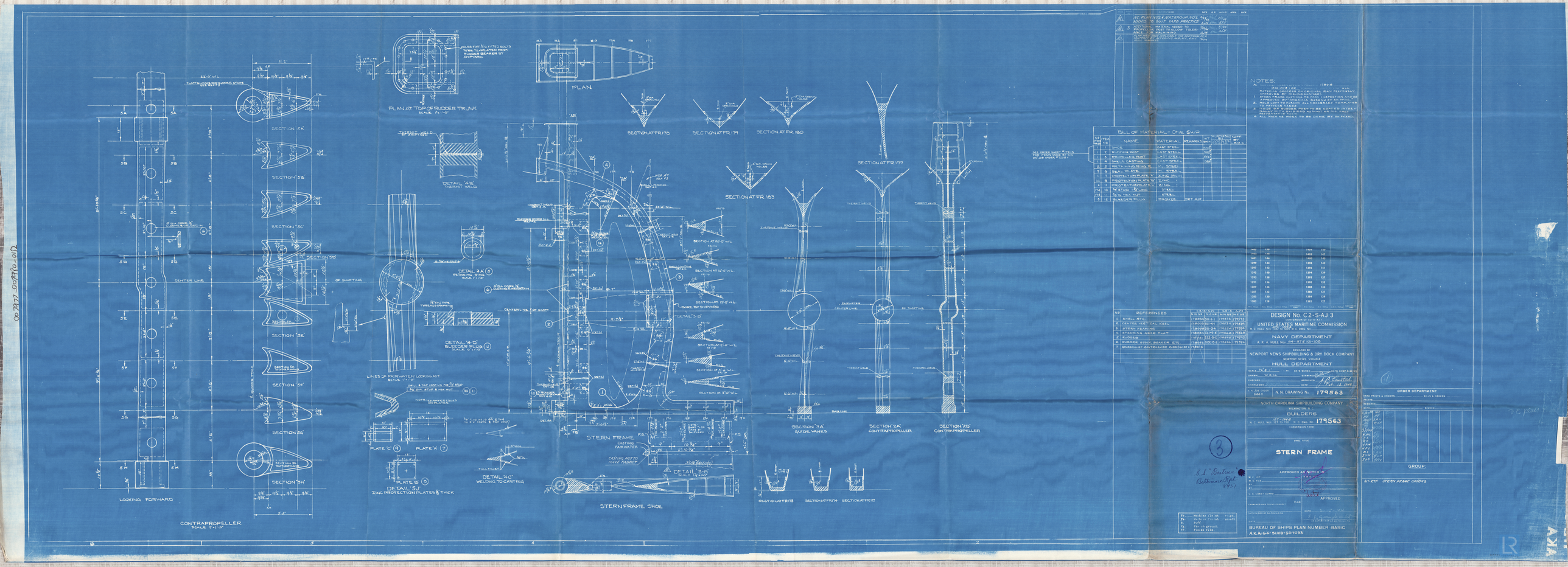


NOTES

| ITEM | QUANTITY | UNIT | U.S. DATUM | APPD. | DATE |
|---|---|---|---|---|---|
| 1 | ADDED BOTTOM PLATING AT AFTER END OF ENGINE ROOM AS SHOWN ON PLAN | | | | |
| 2 | ADDED BOTTOM PLATING AT FORWARD END OF ENGINE ROOM AS SHOWN ON PLAN | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1 | 1/2 | | 1 | 3/4 | |
| 1 | 1/4 | | 1 | 1/2 | |
| 1 | | | 1 | 1/4 | |
| 1 | 3/4 | | 1 | | |


FRAMING DIAGRAM & DETAILS
DESIGN NO. C-2-SAJ 3
NEWPORT NEWS APPROACHES
NEWPORT NEWS WATERWORKS
DRAWING NO. 178592
DET 2-G
FOR PEDESTRIAN ONLY
DETAIL 'G'
DETAIL 'H'
DETAIL 'K'
DETAIL 'L'
DETAIL 'M'
DETAIL 'N'
DETAIL 'P'
DETAIL 'Q'
DETAIL 'R'
DETAIL 'S'
DETAIL 'T'
DETAIL 'U'
DETAIL 'V'
DETAIL 'W'
DETAIL 'X'
DETAIL 'Y'
DETAIL 'Z'
DETAIL 'AA'
DETAIL 'BB'
DETAIL 'CC'
DETAIL 'DD'
DETAIL 'EE'
DETAIL 'FF'
DETAIL 'GG'
DETAIL 'HH'
DETAIL 'II'
DETAIL 'JJ'
DETAIL 'KK'
DETAIL 'LL'
DETAIL 'MM'
DETAIL 'NN'
DETAIL 'OO'
DETAIL 'PP'
DETAIL 'QQ'
DETAIL 'RR'
DETAIL 'SS'
DETAIL 'TT'
DETAIL 'UU'
DETAIL 'VV'
DETAIL 'WW'
DETAIL 'XX'
DETAIL 'YY'
DETAIL 'ZZ'
TABLE OF REACTIONS
TABLE OF QUANTITIES
TABLE OF MATERIALS
TABLE OF CONCRETE STRENGTHS
TABLE OF REINFORCEMENT
TABLE OF STRUCTURAL STEEL
TABLE OF BEARINGS
TABLE OF EXPANSION JOINTS
TABLE OF DRAINAGE
TABLE OF LIGHTING
TABLE OF SIGNAGE
TABLE OF PAINTING
TABLE OF MISCELLANEOUS
TABLE OF NOTES
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TABLE OF FOREWORD
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TABLE OF SUMMARY
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TABLE OF FREE ENDPAPER
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TABLE OF HALF TITLE
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TABLE OF LIST OF MAPS
TABLE OF LIST OF CHARTS
TABLE OF LIST OF GRAPHS
TABLE OF LIST OF DIAGRAMS
TABLE OF LIST OF SCHEMES
TABLE OF LIST OF PLANS
TABLE OF LIST OF ELEVATIONS
TABLE OF LIST OF SECTIONS
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TABLE OF LIST OF EPIGRAPH
TABLE OF LIST OF TABLE OF CONTENTS




| NO. | REVISIONS | BY | APP. | DATE |
|---|---|---|---|---|
| 4 | PC PLASTIGLAS PATTERSHOP NOS. 3999, 4000 & 4001 ADDED TO SUIT MAR. PRACTICE | J.K. | | 7/7/54 |
| 3 | ADDITIONAL MATERIAL ADDED TO ALLOW FOR MACHINING FOLLOWING WELDING | J.K. | | 5/24/54 |
| 2 | ALL DIMENSIONS ARE APPROXIMATE FOR PATTERN PLAN ONLY. FINISHED MACHINED DIMENSIONS TO BE SHOWN ON MACHINE SHOP PLANS | J.K. | | 3/1/54 |
| 1 | | | | |

## BILL OF MATERIAL - ONE SHIP

| NO. ITEMS PER SHIP | NO. | NAME | MATERIAL | REMARKS | WT. PER UNIT LBS. | WT. PER SHIP LBS. |
|---|---|---|---|---|---|---|
| 1 | 1 | SHOE | CAST STEEL | | 9600 | |
| 1 | 2 | RUDDON POST | CAST STEEL | | 7200 | |
| 1 | 3 | PROPELLER POST | CAST STEEL | | 7200 | |
| 1 | 4 | SHELL CASTING | CAST STEEL | | 1800 | |
| 3 | 5 | WELDING STRIPS | CAST STEEL | | | |
| 1 | 6 | SEAL PLATE | CAST STEEL | | | |
| 1 | 7 | PROTECTION PLATE 'A' | ZINC | | | |
| 1 | 8 | PROTECTION PLATE 'B' | ZINC | | | |
| 1 | 9 | PROTECTION PLATE 'C' | ZINC | | | |
| 14 | 10 | 1¼" STUD & NUT | STEEL | | | |
| 174 | 11 | ¾" DIA. RIVET | STEEL | | | |
| 3 | 12 | BLEEDER PLUG | BRONZE | DET 4-D | | |

| NO. | REFERENCES | NAVSHIPS STOCK NO. | NAVSHIPS DRAWING NO. |
|---|---|---|---|
| 1 | SHELL ETC. | 780308(31)-111 | 179573 |
| 2 | CENTER VERTICAL KEEL | 780308(31)-6 | 179579 |
| 3 | STERN FRAMING | 780308(31)-34 | 179584 |
| 4 | STEADYING GEAR PLAT. | 780308(31)-69 | 179568 |
| 5 | RUDDER | 780308 322-04 | 179592 |
| 6 | RUDDER STOCK, BRACES ETC. | 780308 322-01 | 179591 |
| 7 | GRADING OF CONTAINER FOR ITEMS | 78310 | |

## NOTES:

A. ALL CASTINGS TO BE MADE OF MATERIAL MEETING THE REQUIREMENTS OF SPECIFICATION 78008 (31)-1 (A).

1. ALL CASTINGS TO BE MADE IN ORIGINAL PATTERNS OF APPROVED DESIGN.
2. ALL CASTINGS TO BE SUBJECTED TO RADIOGRAPHIC AND MAGNETIC INSPECTION AND/OR ULTRASONIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
3. ALL CASTINGS TO BE SUBJECTED TO HYDROSTATIC TEST AS REQUIRED BY SPECIFICATION.
4. ALL CASTINGS TO BE SUBJECTED TO MAGNETIC PARTICLE INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
5. ALL CASTINGS TO BE SUBJECTED TO ULTRASONIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
6. ALL CASTINGS TO BE SUBJECTED TO RADIOGRAPHIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
7. ALL CASTINGS TO BE SUBJECTED TO MAGNETIC PARTICLE INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
8. ALL CASTINGS TO BE SUBJECTED TO ULTRASONIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
9. ALL CASTINGS TO BE SUBJECTED TO RADIOGRAPHIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
10. ALL CASTINGS TO BE SUBJECTED TO MAGNETIC PARTICLE INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
11. ALL CASTINGS TO BE SUBJECTED TO ULTRASONIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
12. ALL CASTINGS TO BE SUBJECTED TO RADIOGRAPHIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
13. ALL CASTINGS TO BE SUBJECTED TO MAGNETIC PARTICLE INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
14. ALL CASTINGS TO BE SUBJECTED TO ULTRASONIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
15. ALL CASTINGS TO BE SUBJECTED TO RADIOGRAPHIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
16. ALL CASTINGS TO BE SUBJECTED TO MAGNETIC PARTICLE INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
17. ALL CASTINGS TO BE SUBJECTED TO ULTRASONIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
18. ALL CASTINGS TO BE SUBJECTED TO RADIOGRAPHIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
19. ALL CASTINGS TO BE SUBJECTED TO MAGNETIC PARTICLE INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.
20. ALL CASTINGS TO BE SUBJECTED TO ULTRASONIC INSPECTION AS DIRECTED BY REPRESENTATIVE OF THE BUREAU OF SHIPS.

| | | | |
|---|---|---|---|
| 1900 | 150 | 1600 | 140 |
| 1901 | 149 | 1601 | 139 |
| 1902 | 148 | 1602 | 138 |
| 1903 | 147 | 1603 | 137 |
| 1904 | 146 | 1604 | 136 |
| 1905 | 145 | 1605 | 135 |
| 1906 | 144 | 1606 | 134 |
| 1907 | 143 | 1607 | 133 |
| 1908 | 142 | 1608 | 132 |
| 1909 | 141 | 1609 | 131 |
| 1910 | 140 | 1610 | 130 |
| 1911 | 139 | 1611 | 129 |
| 1912 | 138 | 1612 | 128 |
| 1913 | 137 | 1613 | 127 |

DESIGN No. C2-S-AJ 3
CONSTRUCTED FOR
UNITED STATES MARITIME COMMISSION
W.C. SHIP No. 1901 N.C. SHIP No.
NAVY DEPARTMENT
A. & A. HULL No. 64-AT# 101-105
CONSTRUCTED BY
NEWPORT NEWS SHIPBUILDING & DRY DOCK COMPANY
NEWPORT NEWS, VIRGINIA
HULL DEPARTMENT
SCALE 1"=1'-0" 1 PT. DATE SIGNED 7/7/54
DRAWN M.B.N. EXAMINED
CHECKED APPROVED
CHARGE NO. DATE
N.N. JOB ORDER NO. 644 V
N.N. DRAWING No. 179563
NORTH CAROLINA SHIPBUILDING COMPANY
WILMINGTON, N.C.
BUILDERS
N.C. HULL No. 157-158 N.C. Ship No. 179563
CONVERSION YARD
DWG. TITLE
STERN FRAME
APPROVED AS NOTED ON
M.C. V.C.
M.C. FOR
M.C.
U.S. COAST GUARD APPROVED
PLAN
CLASSIFICATION AND FOUND CORRECT
DATE
CERTIFICATE OF REGISTRY No.
DATE
BUREAU OF SHIPS PLAN NUMBER BASIC
AKA G4-S1103-507033

ORDER DEPARTMENT
SEND PRINTS & ORDERS TO BILLS & ORDERS TO
REMARKS
DATE BUILDER

| | | | |
|---|---|---|---|
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |
| 7/7/54 | MT | 7/7/54 | MT |

GROUP:
SII-27 STERN FRAME CASTING

Pf... Machine finish all over.
Pc... Machine finish all over.
Pg... Finish grind.
Ff... Finish file.

S. S. Beatrice Baltimore Dpt. 8751

(3)

(4)

(1)

(2)

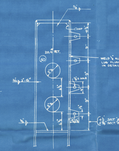
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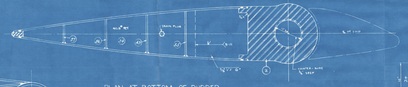


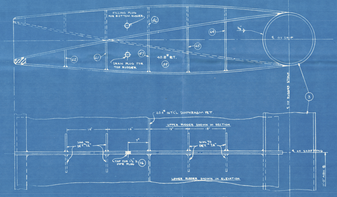









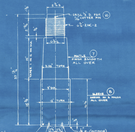





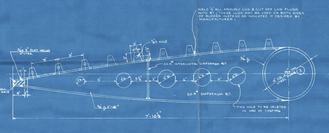


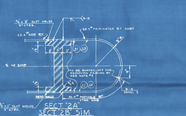


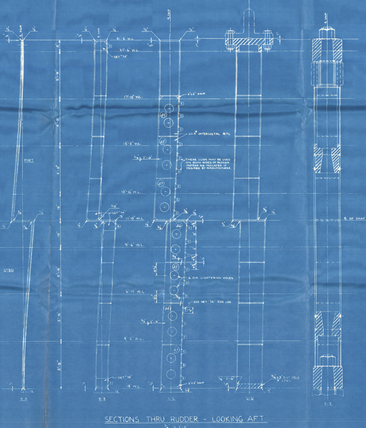



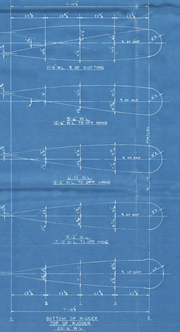


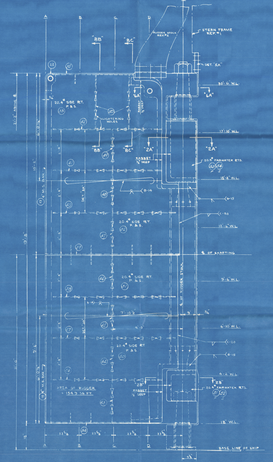





| NO. | REVISIONS | BY | DATE | APP'D |
|---|---|---|---|---|
| 1 | NO PLAN NOS. P-GROUP NOS. ADDED TO SUIT BASIS PRACTICE | | | |
| 2 | PLAN NOS. REVISED TO SUIT BASIS PRACTICE | | | |

BILL OF MATERIAL - ONE SHIP

| ITEM NO. | QUAN. PER SHIP | NAME | MATERIAL | REMARKS | WT. |
|---|---|---|---|---|---|
| 1 | 1 | UPPER RUDDER FRAME | CAST STEEL | | |
| 2 | 1 | LOWER RUDDER FRAME | CAST STEEL | | |
| 3 | 1 | STEEL TUBE | STEEL | | |
| 4 | 1 | GUDGEON BUSHING | STEEL CASTING | | |
| 5 | 1 | PINTLE NUT | STEEL | | |
| 6 | 1 | PINTLE | STEEL | | |
| 7 | 1 | PINTLE SLEEVE | CAST STEEL | | |
| 8 | 1 | PINTLE KEY | STEEL | | |
| 9 | 1 | RUDDER PIN | BRONZE | | |
| 10 | 1 | RUDDER PIN | BRONZE | | |
| 11 | 1 | GUDGEON BUSHING | CAST STEEL | | |
| 12 | 16 | RUDDER LIFTING STOP | STEEL | | |
| 13 | 16 | STOP BOLT NUTS | BRONZE | | |
| 14 | 16 | STOP BOLT NUTS | STEEL | | |
| 15 | 16 | STOP BOLT NUTS | BRONZE | | |
| 16 | 16 | STOP BOLTS | STEEL | | |
| 17 | 1 | STEEL BAR (LONG SLEEVE) | ST. STEEL | | |
| 18 | 1 | STEEL BAR (SHORT SLEEVE) | ST. STEEL | | |
| 19 | 16 | STEEL | STEEL | | |
| 20 | 1 | RUDDER PLATES | CAST STEEL | | |
| 21 | 1 | STEEL BAR (SHORT SLEEVE) | ST. STEEL | | |
| 22 | 1 | STEEL BAR (SHORT SLEEVE) | ST. STEEL | | |

NOTE: ITEMS MARKED * TO BE FURNISHED BY BUILDER

| NUMBER | REFERENCES | SIZE OF SHEETS |
|---|---|---|
| 1 | SYSTEM PLANS | 11"x17" |
| 2 | MISCELLANEOUS SYSTEMS SHOPPING PLANS | 11"x17" |

NOTES:
A. ALL WELDING SHALL BE IN ACCORDANCE WITH THE RULES FOR WELDING OF THE AMERICAN BUREAU OF SHIPPING.
B. ALL WELDING SHALL BE DONE BY WELDERS QUALIFIED BY THE AMERICAN BUREAU OF SHIPPING.
C. ALL WELDING SHALL BE INSPECTED BY AN INSPECTOR APPROVED BY THE AMERICAN BUREAU OF SHIPPING.
D. ALL WELDS SHALL BE MADE BY MANUAL ARC WELDING PROCESS.
E. ALL WELDS SHALL BE CONTINUOUS AND SHALL BE FREE FROM CRACKS, UNDERCUTTING, OVERLAPPING, POROSITY, SLAG INCLUSIONS, AND OTHER DEFECTS.
F. ALL WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATIONS.

| | | | |
|---|---|---|---|
| 1003 | 126 | 1060 | 187 |
| 1004 | 126 | 1061 | 187 |
| 1005 | 126 | 1062 | 187 |
| 1006 | 126 | 1063 | 187 |
| 1007 | 126 | 1064 | 187 |
| 1008 | 126 | 1065 | 187 |
| 1009 | 126 | 1066 | 187 |
| 1010 | 126 | 1067 | 187 |
| 1011 | 126 | 1068 | 187 |
| 1012 | 126 | 1069 | 187 |
| 1013 | 126 | 1070 | 187 |

DESIGN No. C2-S-AJ 3
NEWPORT NEWS SHIPBUILDING & DRY DOCK COMPANY
UNITED STATES MARITIME COMMISSION
C. NOS. MC-30 TO MC-41 INCL.
NAVY DEPARTMENT
A. B. A. HULL No. 0-5-47 & MC-1001 TO MC-1004 INCL.

BUILDER
NEWPORT NEWS SHIPBUILDING & DRY DOCK COMPANY
NEWPORT NEWS, VIRGINIA
HULL DEPARTMENT

DATE OF CONTRACT: 1-15-43
DATE KEEL LAID: 1-15-43
DATE DELIVERED: 1-15-43
CONTRACT No. NOBS-1001

DATE OF: N.N. DRAWING No. 179585

NORTH CAROLINA SHIPBUILDING COMPANY
WILMINGTON, N. C.
BUILDERS

C. NOS. MC-30 TO MC-41 INCL. & Hull No. 179595
CONTRACT No. NOBS-1001

RUDDER
DWG. TITLE

APPROVED AS NOTED ON
DATE
U.S.M.C.
BY
U.S.N.
U.S. COAST GUARD

APPROVED
DATE
BUREAU OF SHIPS

BUREAU OF SHIPS PLAN NUMBER BASIC
AAA-44-SE2-001-801070

ORDER DEPARTMENT
DATE RECEIVED & ENTERED
DATE WANTED
DATE COMPLETED
GROUP
ITEM OF RUDDER

8 7 6 5 4 3 2 1